

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

Claims 1-44 (Cancelled).

45. (Currently Amended) A method for balancing the distribution of interference between radio cells in a wireless communication system, the wireless communication system comprising a plurality of radio cells in which a plurality of subcarrier blocks are used for communication, wherein a number of adjacent radio cells build a cell cluster, wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarrier blocks, and wherein each subcarrier block comprises a plurality of subcarriers ~~the system comprising a plurality of radio cells in which a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, wherein a number of adjacent radio cells build a cell cluster, the method comprising the steps of:~~

grouping said subcarrier blocks into a plurality of subcarrier block sets in each radio cell of the cell cluster,

determining a plurality of transmission power ranges for each of the radio cells ~~cell~~ of said cell cluster, wherein a respective transmission power range defines a range of transmission power levels used for transmission power control within a respective radio cell of the cell cluster,

assigning the plurality of transmission power ranges to the subcarrier block sets of radio cells of the cell cluster, such that:

in each radio cell of the cell cluster, each of said plurality of transmission power ranges is mapped to one of the subcarrier block sets of a respective radio cell, and

each of said plurality of transmission power ranges is mapped to one of said corresponding subcarrier block sets among the radio cells of said cell cluster.

Claims 46-48 (Cancelled).

49. (Currently Amended) The method according to claim 45 [[47]], wherein the mapping is a unique or one-to-one mapping.

50. (Currently Amended) A method for balancing the distribution of interference between radio cells in a wireless communication system, the wireless communication system comprising a plurality of radio cells in which a plurality of subcarrier blocks are used for communication, wherein N adjacent radio cells build a cell cluster, wherein the N radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarrier blocks, and wherein each subcarrier block comprises a plurality of subcarriers ~~the system comprising a plurality of radio cells in which a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, wherein N adjacent radio cells build a cell cluster, N being an integer number of 2 or more, the method comprising the steps of:~~

grouping said subcarrier blocks into N subcarrier block sets in each radio cell of the cell cluster, ~~wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarriers,~~

determining N transmission power ranges for each of the radio ~~cells~~ cell of said cell cluster, wherein a respective transmission power range defines a range of transmission power levels used for transmission power control within a respective radio cell of the cell cluster,

assigning N transmission power ranges to the N subcarrier block sets of radio cells of the cell cluster, such that

in each of the N radio cells of the cell cluster, each of said N transmission power ranges is mapped to one of the N subcarrier block sets of a respective radio cell, and

each of said N transmission power ranges is mapped to one of said corresponding subcarrier block sets among the N radio cells of said cell cluster

~~each of the N transmission power ranges in a radio cell is assigned to one of the N subcarrier block sets of said radio cell, and~~

~~each of the N transmission power ranges is assigned to one subcarrier block set of corresponding subcarrier block sets.~~

51. (Currently Amended) A method for balancing the distribution of interference between radio cells in a wireless communication system, the wireless communication system comprising a plurality of radio cells each of them comprising at least two sectors in each of which a plurality of subcarrier blocks are used for communication, wherein a sector of a radio cell and its adjacent sectors in neighboring radio cells build a sector cluster, wherein the sector

cluster comprises corresponding subcarrier block sets having the same subcarrier blocks, and wherein each subcarrier block comprises a plurality of subcarriers ~~the system comprising a plurality of radio cells each of them comprising at least two sectors, wherein in each sector a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, wherein a number of adjacent radio cells build a cell cluster,~~ the method comprising the steps of:

grouping said subcarrier blocks into a plurality of subcarrier block sets in each of the sectors of ~~the sector~~ each radio cell of said cluster,

determining a plurality of transmission power ranges for each sector ~~of each radio cell of the sector~~ cell cluster, wherein a respective transmission power range defines a range of transmission power levels used for transmission power control within a respective sector of the sector cluster,

assigning the plurality of transmission power ranges to the plurality of subcarrier block sets of a sector of a radio cell and its adjacent sectors of said other radio cells, wherein said plurality of transmission power ranges is assigned to the subcarrier block sets of the sector cluster, such that

in each sector of a sector cluster, each of said plurality of transmission power ranges is mapped to one of said subcarrier block sets of a respective sector, and

each of said plurality of transmission power ranges is mapped to one of said corresponding subcarrier block sets in the sector cluster.

Claims 52-54 (Cancelled).

55. (Currently Amended) The method according to claim 51 [[53]], wherein the mapping is a unique or one-to-one mapping.

56. (Currently Amended) The method according to claim 45, wherein the communication system comprises a plurality of communication terminals communicating with base stations associated ~~with~~ to said plurality of adjacent radio cells/sectors of the cell cluster, the method further comprising ~~the steps of~~:

measuring the path loss of a communication signal of a communication terminal and the path loss of interference from adjacent radio cells/~~sectors of the cell cluster~~ for said communication signal, and

assigning the communication terminal to a subcarrier block of a subcarrier block set in a radio cell/~~sector of the cell cluster other than the adjacent radio cells~~ based on said measurement.

57. (Currently Amended) The method according to claim 56, further comprising ~~the step~~ of determining a transmission power range for said communication terminal based on said measurement, and wherein the communication terminal is assigned to a block set based on the determined transmission power range.

58. (Currently Amended) The method according to claim 45, wherein the transmission power ranges in different radio cells/~~sectors of the cell cluster~~ vary.

59. (Previously Presented) The method according to claim 45, wherein the subcarrier block set size of corresponding subcarrier block sets is equal.

60. (Currently Amended) The method according to claim 45, further comprising ~~the step~~ of reconfiguring the subcarrier block sets in a radio cell/~~sector of radio cell~~ of the cell cluster.

61. (Currently Amended) The method according to claim 45, further comprising ~~the step~~ of reconfiguring the transmission power ranges in a radio cell/~~sector of a radio cell~~ of the cell cluster.

62. (Currently Amended) The method according to claim [[60]] 61, wherein the reconfiguration of the ~~power ranges and/or the~~ subcarrier block sets in the radio cell of the cell cluster ~~cell~~ is performed in accordance with the other adjacent radio cells of the its cell cluster.

63. (Currently Amended) The method according to claim 60, wherein the reconfiguration of the power ranges and/or the subcarrier block sets in the sector is performed in accordance with the other sectors of its sector cluster.

64. (Previously Presented) The method according to claim 60, wherein the reconfiguration is based on channel quality measurements.

65. (Currently Amended) The method according to claim 45, further comprising ~~the step~~ of signaling information related to a reconfiguration of the subcarrier block sets in a radio cell/~~sector~~ from the/~~its~~ radio cell to at least one adjacent radio cell/~~sector~~ within the cell cluster.

66. (Currently Amended) The method according to claim 61, further comprising ~~the step~~ of signaling information related to channel qualities in a radio cell/~~sector~~ of the cell cluster from ~~said the/its~~ radio cell to at least one other adjacent radio cell/~~sector~~ within the cell cluster.

67. (Currently Amended) The method according to claim 65, further comprising ~~the step~~ of signaling the information to a control unit in the communication system.

68. (Currently Amended) The method according to claim 56, further comprising ~~the step~~ of signaling information related to a subcarrier block assignment and/or a subcarrier block set assignment to a communication terminal.

69. (Currently Amended) A base station for use in a wireless communication system, the wireless communication system comprising a plurality of radio cells in which a plurality of subcarrier blocks are used for communication, wherein a number of adjacent radio cells build a cell cluster, wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarrier blocks, and wherein each subcarrier block comprises a plurality of subcarriers ~~the system comprising a plurality of radio cells in which a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality~~

of subcarriers, wherein a number of adjacent radio cells build a cell cluster, the base station controlling one of the radio cells of the cell cluster and comprising:

a processing unit operable to group said subcarrier blocks into a plurality of subcarrier block sets in the each radio cell of the cell cluster controlled by the base station,

a determination unit operable to determine a plurality of transmission power ranges for each of the radio cell of the said cell cluster controlled by the base station,

a power control unit operable to perform power control within a range of transmission power levels defined by a respective one of said plurality of transmission power ranges,

an assigning unit operable to assign the plurality transmission power ranges to the subcarrier block sets of the radio cells of the cell cluster controlled by the base station, such that in each radio cell of the cell cluster, each of said plurality of transmission power ranges is mapped to one of the subcarrier block sets of a respective radio cell, and each of said plurality of transmission power ranges is mapped to one of said corresponding subcarrier block sets among the radio cells of said cell cluster.

Claims 70-72 (Cancelled).

73. (Currently Amended) A base station in a wireless communication system, the wireless communication system comprising a plurality of radio cells in which a plurality of subcarrier blocks are used for communication, wherein N adjacent radio cells build a cell cluster, wherein the N radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarrier blocks, and wherein each subcarrier block comprises a plurality of

~~subcarriers the system comprising a plurality of radio cells in which a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, wherein N adjacent radio cells build a cell cluster, N being an integer number of 2 or more, the base station controlling one of the radio cells of the cluster and comprising:~~

~~a processing unit operable to group said subcarrier blocks into $[[x \cdot]]$ N subcarrier block sets in the each radio cell controlled by the base station of the cell cluster, wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarriers, x being an integer number of 1 or more,~~

~~a determination unit operable to determine $[[y \cdot]]$ N transmission power ranges for each of the radio cell of the said cell cluster controlled by the base station, y being an integer number of 1 or more,~~

~~a power control unit operable to perform power control within a range of transmission power levels defined by a respective one of said plurality of transmission power ranges,~~

~~an assigning unit operable to assign $[[y \cdot]]$ N transmission power ranges to the $[[x \cdot]]$ N subcarrier block sets of the radio cells of the cell cluster controlled by the base station, such that in each of the N radio cells of the cell cluster, each of said N transmission power ranges is mapped to one of the N subcarrier block sets of a respective radio cell, and~~

~~each of said N transmission power ranges is mapped to one of said corresponding subcarrier block sets among the N radio cells of said cell cluster~~

~~each of the $y \cdot N$ transmission power ranges in a radio cell is assigned to one of the $x \cdot N$ subcarrier block sets of said radio cell, and~~

y/x transmission power ranges on average are assigned to one subcarrier block set of corresponding subcarrier block sets.

74. (Currently Amended) A base station for use in a wireless communication system,
the wireless communication system comprising a plurality of radio cells each of them comprising
at least two sectors in each of which a plurality of subcarrier blocks are used for communication,
wherein a sector of a radio cell and its adjacent sectors in neighboring radio cells build a sector
cluster, wherein the sector cluster comprises corresponding subcarrier block sets having the same
subcarrier blocks, and wherein each subcarrier block comprises a plurality of subcarriers the
system comprising a plurality of radio cells each of them comprising at least two sectors,
wherein in each sector a plurality of subcarrier blocks is used for communication, wherein each
subcarrier block comprises a plurality of subcarriers, and wherein a number of adjacent radio
cells builds a cell cluster, the base station controlling a radio cell having a sector of the sector
cluster and comprising:

a processing unit operable to group said subcarrier blocks into a plurality of [[N]]
subcarrier block sets in each of the sector sectors of the sector each radio cell of said cluster
controlled by the base station, wherein each sector of a radio cell has N-1 adjacent sectors in the
other radio cells of the cell cluster, and wherein a sector of a radio cell and its adjacent sectors in
said other radio cells each comprise corresponding subcarrier block set having the same
subcarriers, N being an integer number of 2 or more,

a determination unit operable to determine a plurality of transmission power ranges for the sector of the sector cluster controlled by the base station ~~N transmission power ranges for each sector of each radio cell of the cell cluster,~~

a power control unit operable to perform power control within a range of transmission power levels defined by a respective one of said plurality of transmission power ranges,

an assigning unit operable to assign the ~~[[N]]~~ transmission power ranges to the ~~[[N]]~~ subcarrier block sets of the ~~[[a]]~~ sector of the sector cluster controlled by the base station ~~a radio cell and its adjacent sectors of said other radio cells,~~ such that

in each sector of a sector cluster, each of said plurality of transmission power ranges is mapped to one of said subcarrier block sets of a respective sector, and

each of said plurality of transmission power ranges is mapped to one of said corresponding subcarrier block sets in the sector cluster

~~in a sector, each of the N transmission power ranges in a sector of a radio cell is assigned to one of the N subcarrier block sets of said sector, and~~

~~each of the N transmission power ranges is assigned to one subcarrier block set of corresponding sectors.~~

Claims 75 and 76 (Cancelled).

77. (Currently Amended) The base station according to claims 73, further comprising:

a measuring unit operable to measure the path loss of a communication signal of a communication terminal and the path loss due to interference among the N adjacent radio cells of the cell cluster adjacent sectors for said communication signal, and

the assigning unit is operable to assign the communication terminal to one of said subcarrier block sets based on said measurements.

Claims 78 and 79 (Cancelled).

80. (Currently Amended) A radio communication system comprising a base station according to claim 69 and a communication terminal ~~in a wireless communication system, the system comprising a plurality of radio cells in which a plurality of subcarrier blocks is used for communication, wherein each subcarrier block comprises a plurality of subcarriers, the communication terminal comprising power control unit operable to perform power control between a base station of a radio cell communicating with the communication terminal, wherein the power control unit is operable to perform power control in a transmission power control range in an interval defined by a transmission power level of 0 and a maximum transmission power level~~ in a wireless communication system, the wireless communication system comprising a plurality of radio cells in which a plurality of subcarrier blocks are used for communication, wherein each subcarrier block comprises a plurality of subcarriers, the communication terminal comprising a power control unit operable to perform power control between a base station of a radio cell communicating with the communication terminal, wherein the power control unit is

operable to perform power control in a transmission power control range in an interval defined by a transmission power level of 0 and a maximum transmission power level.

81. (New) The method according to claim 51, wherein the transmission power ranges in different sectors of the sector cluster vary.

82. (New) The method according to claim 51, further comprising reconfiguring the subcarrier block sets in a sector of the sector cluster.

83. (New) The method according to claim 51, further comprising reconfiguring the transmission power ranges in a sector of the sector cluster.

84. (New) The method according to claim 51, wherein the subcarrier block set size of corresponding subcarrier block sets is equal.

85. (New) A communication terminal in a wireless communication system, the wireless communication system comprising a plurality of radio cells in which a plurality of subcarrier blocks are used for communication, wherein a number of adjacent radio cells build a cell cluster, wherein the radio cells of the cell cluster each comprises corresponding subcarrier block sets having the same subcarrier blocks, and wherein each subcarrier block comprises a plurality of subcarriers, wherein the communication terminal is communicating in one of the radio cells of the cell cluster and comprising:

a power control unit that performs power control of the data transmitted to a base station controlling the radio cell by the communication terminal, wherein the power control unit performs power control within a given one of plural transmission power control ranges, wherein each transmission power control range is associated to one of the subcarrier block sets in the radio cell,

a receiving unit that receives an allocation of a subcarrier block assignment or a subcarrier block set, and

a selection unit that transmits data to the base station on the assigned subcarrier block or assigned subcarrier block set, wherein

the transmit power control unit performs power control of the transmitted data within the transmit power control range associated to the subcarrier block set to which the assigned subcarrier block belongs, respectively associated to the assigned subcarrier block set.